Operating Instructions For The Xtr-1 Single Tube Reader

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1. WELCOME

The XTR-1 single tube reader from FluidX is a sophisticated 2D Data Matrix code reader capable of reading standard pre-coded tubes from FLUIDX and a range of other manufacturers, assuming they adhere to the ISO 16022 Data Matrix two dimensional bar code format.

The software has been designed to run with minimum user input and setup.

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2. INTRODUCTION

The single tube reader installation consists of three separate sub-installations:

- The Single Reader Application and Drivers
- Microsoft .NET Framework 4
- Microsoft Visual C++ 2010 Redistributable Package

These installations are automatically performed by the 2D single tube reader installer.

The computer will require a restart once all three installations have taken place.

Should the software request a restart during the first or second installation select "No".

Only select "Yes" to restart after the third installation has been completed.

3. XTR-1 SYSTEM SET-UP

The XTR-1 solid-state single tube reader (fig 1) hardware consists of the following items:

- XTR-1 reader unit
- User manual
- USB memory stick which contains:
    - Installation Software
    - User Manual
    - License Number as 2D on Case
    - Calibration Window

Fig 1.

3.1 System Requirements

- Windows® 7, Windows Vista®, Windows XP with Service Pack 2 (SP2) or higher (excluding Windows XP 64-bit);
- Minimum: Intel Dual-Core 1.6 GHz or higher, 1 GB of RAM;
- Recommended: Intel Dual-Core 3.0 GHz or higher, 2 GB of RAM
- Hard Drive 1.5 GB free
- USB 2.0 available USB Port

3.2 Starting the Installation

- Before starting the installation please ensure that the single tube reader unit is NOT plugged into any USB port on the computer and that administrator permission is available to install applications.

- If User Account Control is enabled (Windows Vista and 7) a warning message will be displayed before the application starts. Press “Yes” to continue.

- The reader should be plugged in after the software installation has completed and the computer has been restarted.

- Place the installation USB Memory Stick into a spare USB port.

- The installation should start automatically. If this does not occur, navigate to the drive associated with the USB Stick and open (fig 2).

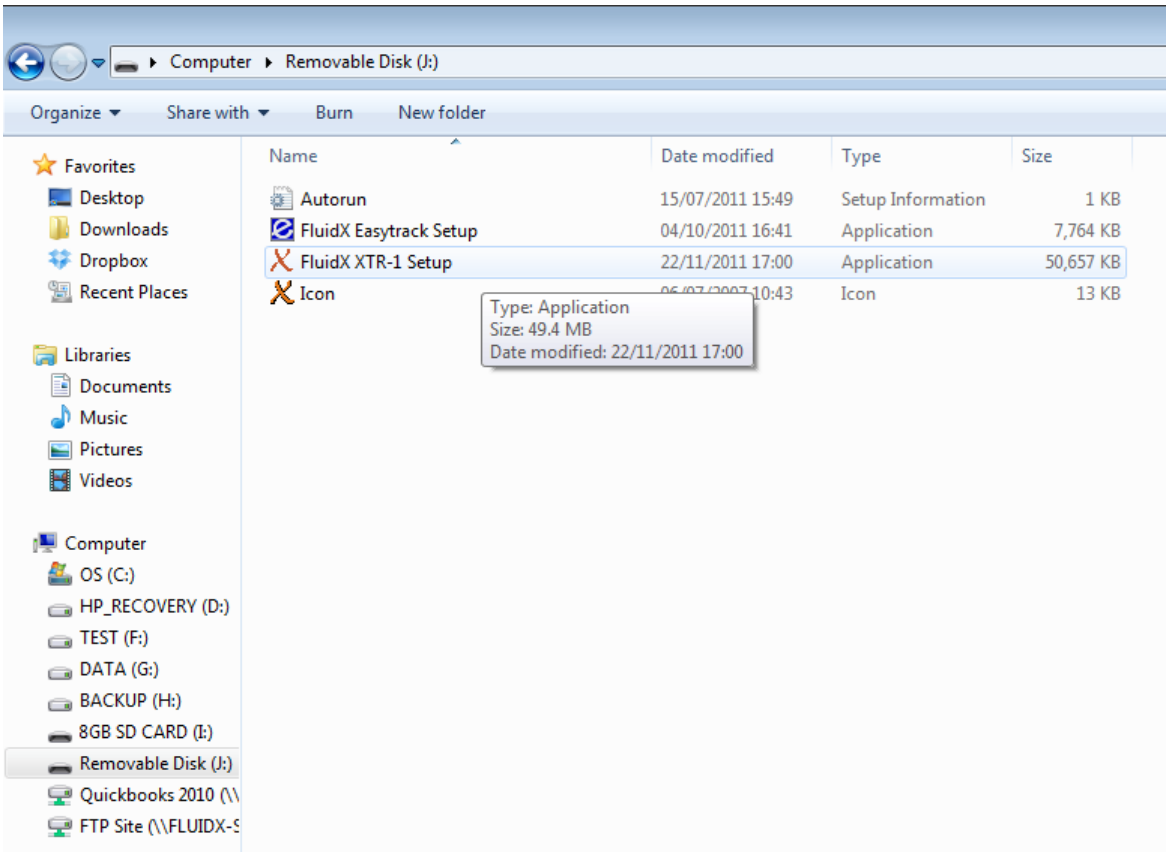


Fig 2.

The installation can be started manually by double clicking on the FluidX XTR-1 Setup.exe Icon.

Setup - FluidX XTR-1
Welcome to the FluidX XTR-1 Setup Wizard
This will Install XTR-1 application on your computer.
Click Next to continue, or Cancel to exit Setup.
fluidX
Next >
Cancel

Fig 3

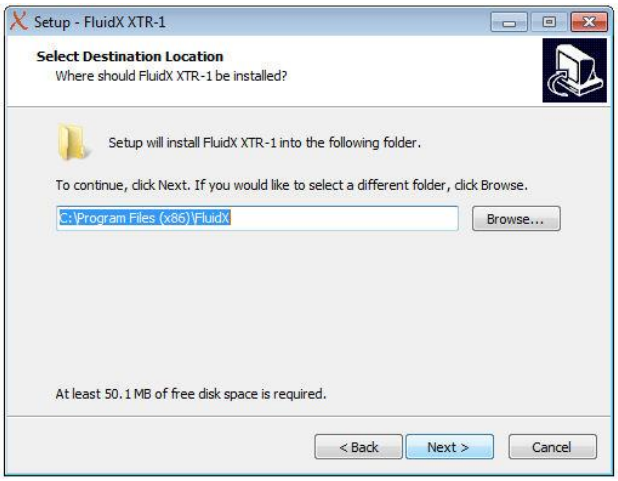

Setup - FluidX XTR-1
Select Destination Location
Where should FluidX XTR-1 be installed?
Setup will install FluidX XTR-1 into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files (x86)\FluidX
Browse...
At least 50.1 MB of free disk space is required.
< Back
Next >
Cancel

Fig 4

Click “Next” to commence the installation (fig 3) and select the installation directory required (fig 4).

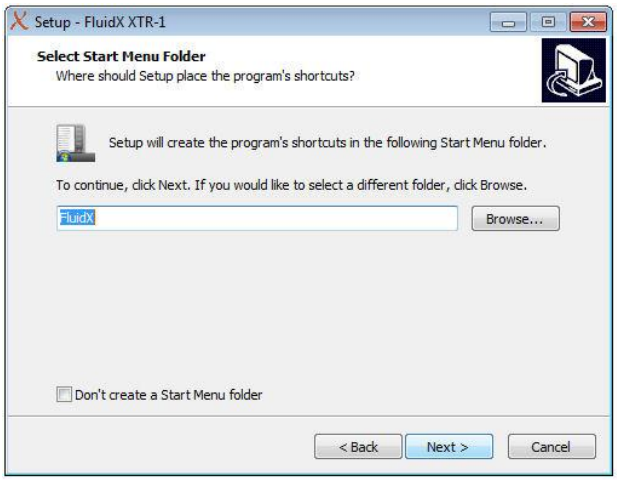

Setup - FluidX XTR-1
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
FluidX
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel

Fig 5

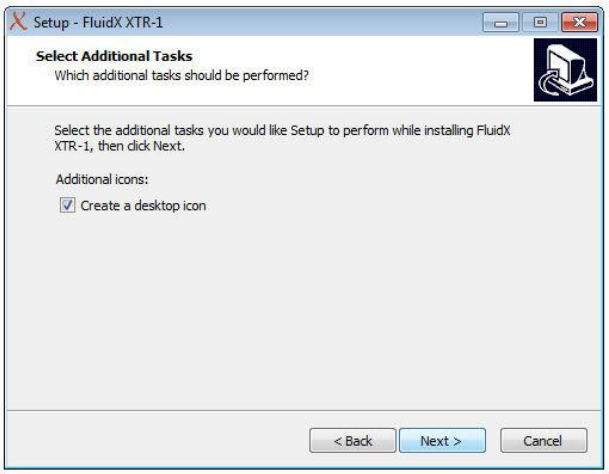

Setup - FluidX XTR-1
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing FluidX XTR-1, then click Next.
Additional icons:
Create a desktop icon
< Back
Next >
Cancel

Fig 6

Select the program shortcut menu entry (fig 5) and select options required (fig 6).

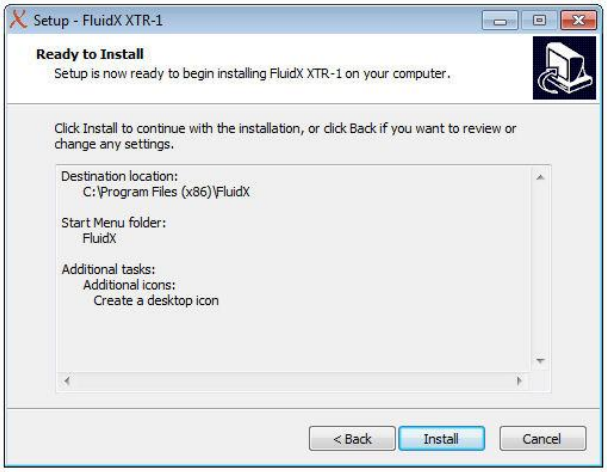

Setup - FluidX XTR-1
Ready to Install
Setup is now ready to begin installing FluidX XTR-1 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Program Files (x86)\FluidX
Start Menu folder:
FluidX
Additional tasks:
Additional icons:
Create a desktop icon
< Back
Install
Cancel

Fig 7

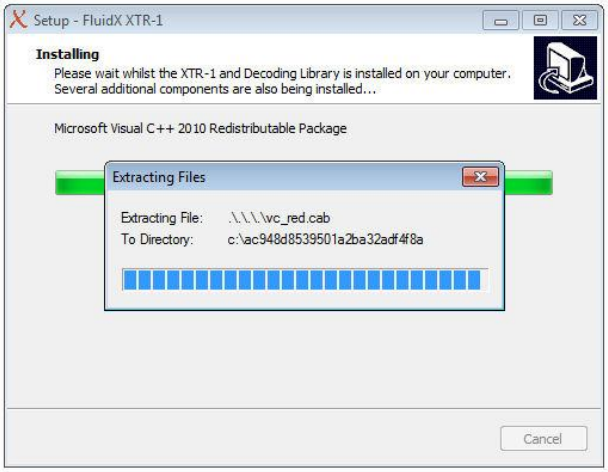

Setup - FluidX XTR-1
Installing
Please wait whilst the XTR-1 and Decoding Library is installed on your computer. Several additional components are also being installed...
Microsoft Visual C++ 2010 Redistributable Package
Extracting Files
Extracting File: .\.\.\.\vc_red.cab
To Directory: c:\ac948d8539501a2ba32adf4f8a
Cancel

Fig 8

Check the Installation settings and click Install to start the process (fig 7) and wait until the installation has completed (fig 8).

Setup - FluidX XTR-1
Completing the FluidX XTR-1 Setup Wizard
To complete the installation of FluidX XTR-1, Setup must restart your computer. Would you like to restart now?
Yes, restart the computer now
No, I will restart the computer later
fluidX
Finish

Fig 9

Lastly, restart the computer (fig 9).

3.3 Complete the Hardware Installation

Once the computer has restarted insert the XTR-1 USB cable in the first available USB port. Windows will automatically load the appropriate drivers.

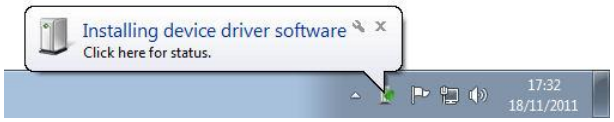


Fig 10

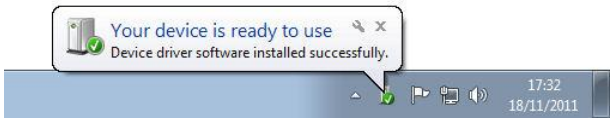


Fig 11

The XTR-1 drivers will be installed automatically (fig 10), wait until the drivers are installed and “Your device is ready to use” appears (fig 11).

3.4 Initial Setup and Serial Number Entry

Once the drivers have been installed the application can be started from the desktop shortcut.

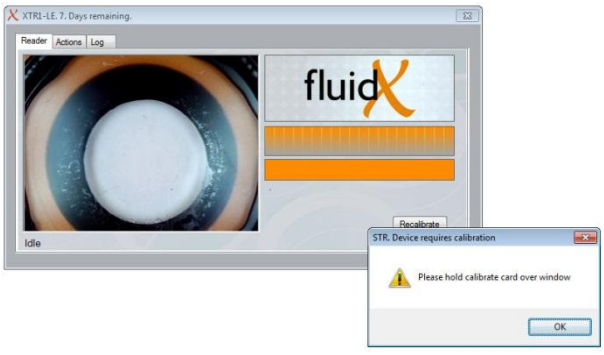


Fig 12

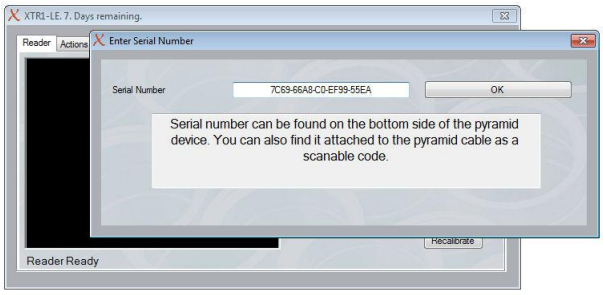

XTR1-LE. 7. Days remaining.
Reader
Actions
Enter Serial Number
Serial Number
7C69-66A8-C0-EF99-55EA
OK
Serial number can be found on the bottom side of the pyramid device. You can also find it attached to the pyramid cable as a scanable code.
Recalibrate
Reader Ready

Fig 13

When the application first opens, the “XTR Decice needs calibrating” dialog will appear along side the main XTR-1 application.
Place the white USB memory stick box over the scanning window and press “OK”. (Fig 12).
This will calibrate the white balance and scanning window.

Once calibrated the “Enter Serial Number” dialog box will appear (fig 13).

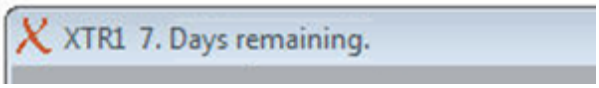


Fig 14

fig 15

Enter the Serial Number, this can be found on the bottom of the XTR-1 reader and on the box of the USB memory stick (fig 14)

The code can be entered manual by typing into the dialog box or by scanning the 2D code on the box of the USB memory stick.

The Title bar of the XTR-1 application will display “XTR-1 7 Days remaining” until the installation is activated (fig 15).

3.5 Activation of XTR-1 Application

The XTR-1 single tube reader and application software will function for 7 days without activation, after this time it will need to be activated.

Fig 16

Fig 17

To start the activation right click on the orange “X” icon in the system tray.
Select “About FluidX Tube Reader” (fig 16).

The About Box will display the number of days remaining for “Activation”.
Select “Activate” from the Dialog Box (fig 17).

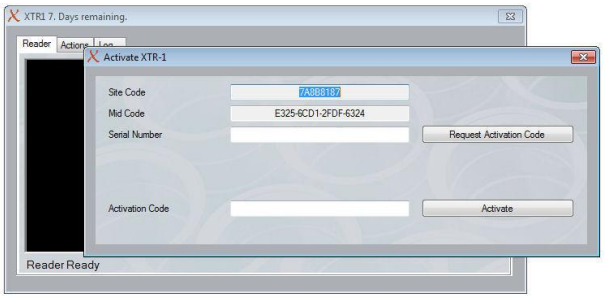


Fig 18

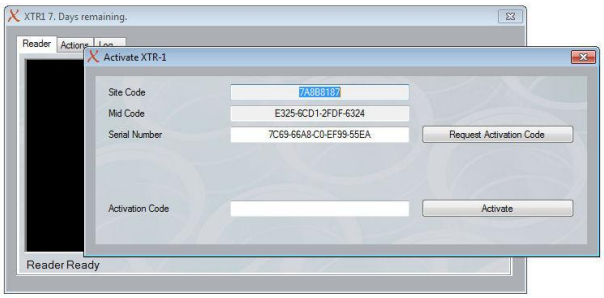


Fig 19

Enter the serial number (fig 18). This can be found on the bottom of the XTR-1 reader and on the box of the USB memory stick.

Then press the “Request Activation Code” button (fig 19).

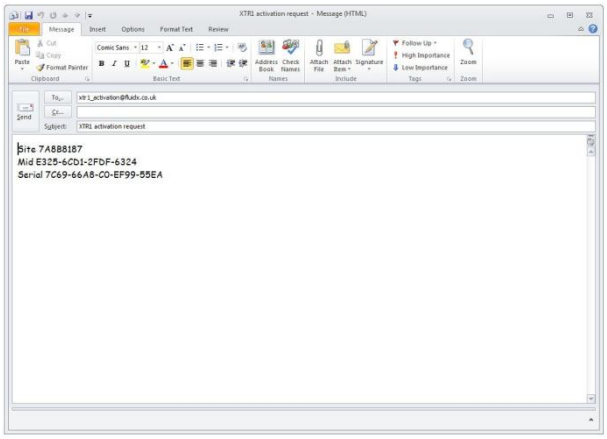


Fig 20

Fig 21

An email will be created, if the PC has an email client configured (fig 20).

If no email client is configured copy the

- Site Code
- Mid Code
- Serial Number

And send manually to: xtr1_activation@fluidx.co.uk

An activation code will be received by email within 48 hours. In the meantime the application can be used for 7 days (fig 21). The “About” box now shows XTR-1 application is “Licensed” (fig 22).

Fig 22

4. OPERATING AND SOFTWARE OVERVIEW

Double click the new Single Reader icon on the desktop:

4.1 Reader Tab

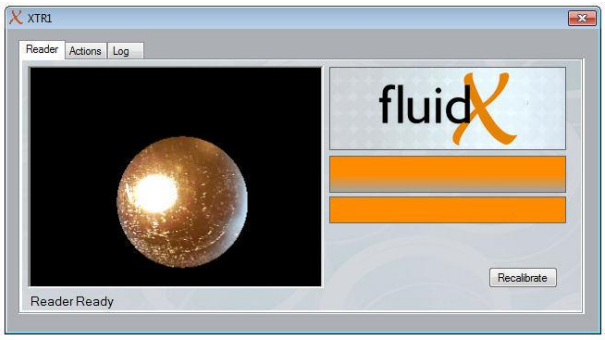


Fig 23

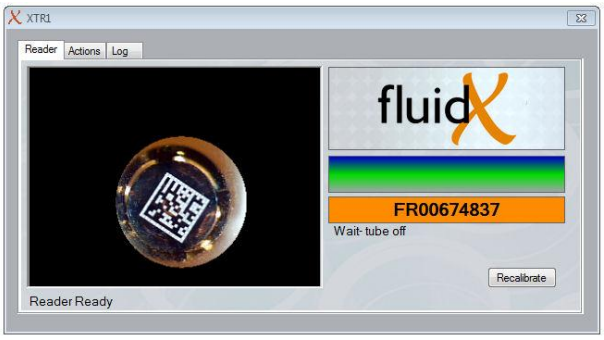


Fig 24

To read a tube, place the 2D-coded tube on the scanning window. The code will be displayed.

Once the reader is setup and configured the main application window can be closed using the “X” in the top right hand corner. This will minimise the application to the system tray.

The application will continue to function, and will read and decode tubes that are placed on the scanning window.

To “Restore” the application, right click on the orange “X” in the system tray and select “Restore” (fig 25)

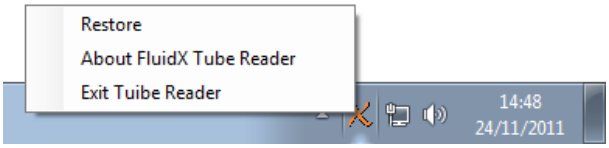


Fig 25

4.2 Actions Tab

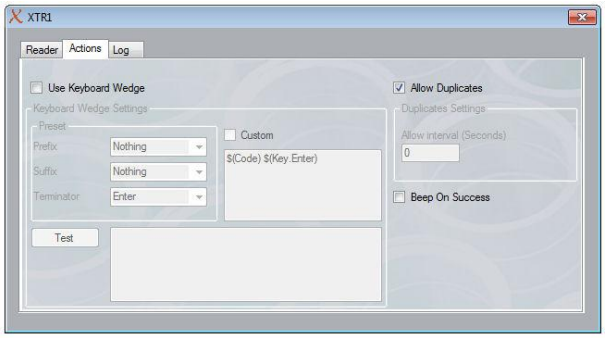


Fig 26

The Actions Tab has 3 sections (fig 26):

- Use keyboard wedge
- Allow duplicates
- Beep on success

4.2.1 Use Keyboard Wedge

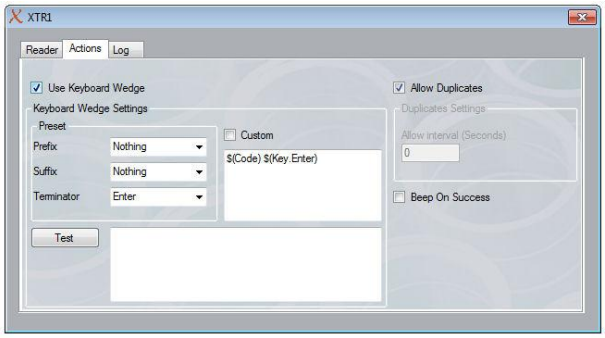


Fig 27

Wedge Macros

The XTR-1 keyboard wedge can be used to auto type decoded values into documents, webpages, spread sheets or any application receiving textual input.

The wedge output is formatted using a macro language and is adjusted from the Keyboard Wedge settings (fig 27).

The preset group can be used to quickly set generic output formats. Custom allows a more specialised output format.

Preset

Presets allow a prefix, suffix and terminator for the decoded value.

Select the required prefix, suffix & terminator from the drop down menu for each.

The wedge macros are generated automatically. Test the output formatting using the 'Test' button.

Custom
Custom allows text and macros to be entered.
Click the custom checkbox and type the macros into the text area.

Test the output with the 'Test' button. See macros and macro reference for more information.

Macros
Macros are enclosed in parenthesis and prefixed with a dollar sign, e.g. $(Macro).

Some Macros accept parameters and can be entered after a full stop e.g. $(Macro.Parameters).

See the keyboard wedge macro reference for more information.

Keyboard Wedge Macro Reference

Code
This will output the decoded value.

E.g. The code is $(Code).

MachineName
This will output the name of the pc.

E.g. $(Code) from pc $(MachineName)

UserName
This will output the name of current logged in user.

E.g. $(Code) from user $(UserName)

Key
This macro will send a key press.

The key to press is specified as a parameter. E.g. $(Code) $(Key.Enter), $(Code) $(Key.Tab).

Available parameters are:

$(Key.BACKSPACE)	Backspace
$(Key.DEL)	Delete
$(Key.DOWN)	Down Arrow
$(Key.ENTER)	Enter
$(Key.ESC)	Escape
$(Key.LEFT)	Left Arrow
$(Key.PGDN)	Page Down
$(Key.PGUP)	Page Up
$(Key.RIGHT)	Right Arrow
$(Key.TAB)	Tab
$(Key.UP)	Up Arrow
$(Key.ADD)	Keypad Add
$(Key.SUBTRACT)	Keypad Subtract
$(Key.MULTIPLY)	Keypad Multiply
$(Key.DIVIDE)	Keypad Divide

Time
This macro can be used to send time and date.

The formatting is specified as a parameter. E.g. $(Time.dd-MM-yy HH-mm-ss) .

Available parameters are:

"d"	The day of the month, from 1 through 31.
"dd"	The day of the month, from 01 through 31.
"ddd"	The abbreviated name of the day of the week.
"dddd"	The full name of the day of the week.
"h"	The hour, using a 12-hour clock from 1 to 12.
"hh"	The hour, using a 12-hour clock from 01 to 12.
"H"	The hour, using a 24-hour clock from 0 to 23.
"HH"	The hour, using a 24-hour clock from 00 to 23.
"K"	Time zone information.
"m"	The minute, from 0 through 59.
"mm"	The minute, from 00 through 59.
"M"	The month, from 1 through 12.
"MM"	The month, from 01 through 12.
"MMM"	The abbreviated name of the month.
"MMMM"	The full name of the month.
"s"	The second, from 00 through 59.
"t"	The first character of the AM/PM designator.
"tt"	The AM/PM designator.
"y"	The year, from 0 to 99.
"yy"	The year, from 00 to 99.
"yyy"	The year, with a minimum of three digits.
"yyyy"	The year as a four-digit number.
"yyyyy"	The year as a five-digit number.
"z"	Hours offset from UTC, with no leading zeros.
"zz"	Hours offset from UTC, with a leading zero for a single-digit value.
"zzz"	Hours and minutes offset from UTC.
"g", "gg"	The period or era.

4.2.2 Allow Duplicates

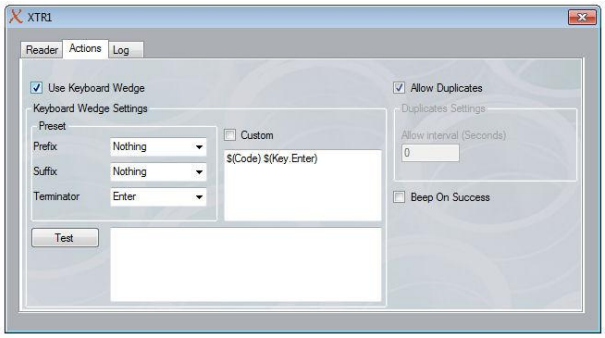


Fig 28

With this checkbox enabled (fig 28) the same tube can be read and decoded as many times as desired.

With this checkbox not enabled the same tube will not read and decode until the application is restarted.

4.2.3 Beep On Success

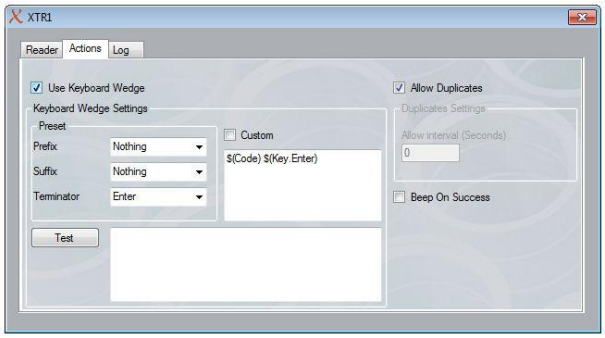


Fig 29

With this checkbox enabled PC with Beep (default system sound) when a tube is successfuly decoded.

This should be enabled when planning to use the main application in the minimised state

4.3 Log Tab

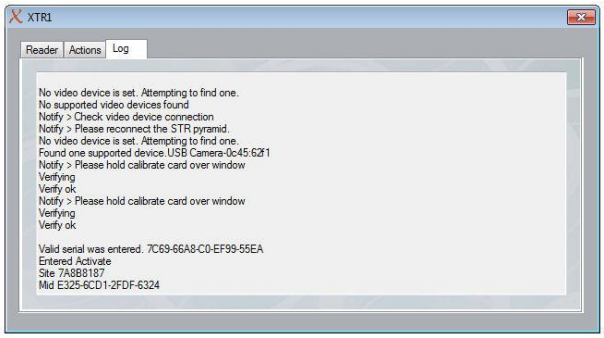


Fig 30

The Log Tab is used for diagnostics and trouble shooting purposes.

4.4 Minimise, Restore and Exit

Fig 30

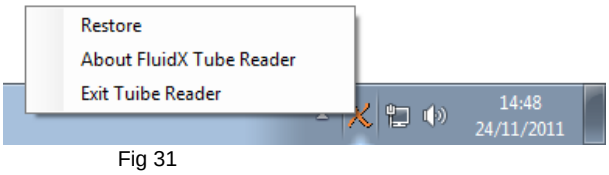


Fig 31

The XTR-1 application can be minimised to the system try by clicking the close “X” at the top right corner of the application (fig 30).

To “Restore” the XTR-1 application, right click on the orange “X” in the system tray and select “Restore” (fig 31).

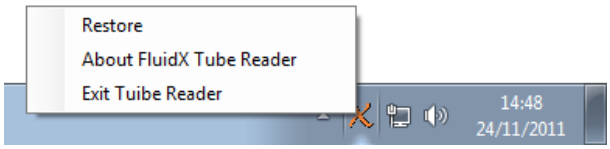


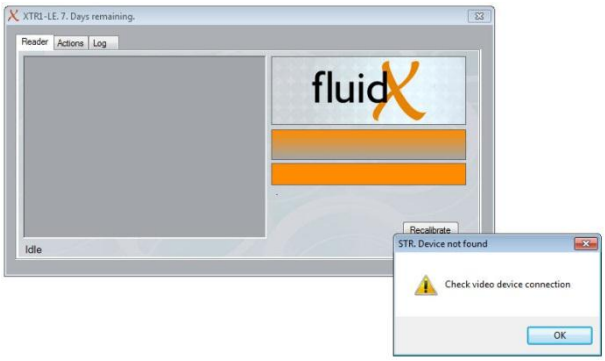
Fig 32

To “Exit” the XTR-1 application right click on the orange “X” in the system tray and select “Exit Tube Reader” (fig 32).

5. TROUBLE SHOOTING

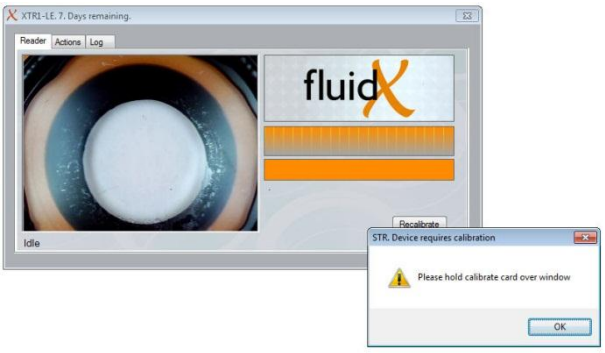
No image in man XTR-1 application

The XTR-1 is not plugged into a USB port on the PC.



Slow reading

Press the “Recalibrate” button and place a white card on the scanning window.



Adverse lighting conditions

In some lighting conditions the XTR-1 application may struggle to decode some tubes.

If this is the case using the black “Doughnut” provided with the unit may help.

Affix the Black “Doughnut” to the scanning surface and center on the window, perform a “Recalibration”

6. APPENDIX A: SYSTEM SPECIFICATIONS

6.1 XTR-1 Single Tube Reader

Environmental Specifications:

Ambient operating temperature of processor:	5 to 50°C.
Storage temperature:	5 to 50°C.
Operating humidity: (non-condensing).	10 to 90%
Storage humidity: (non-condensing).	5 to 95%

6.2 Power supply

USB Power Source

6.3 Casing

Length:	10 cm
Width:	10 cm
Height:	9 cm

7. APPENDIX C: DECLARATION OF CE CONFORMITY

We, fluidx Ltd
Monks Heath Hall Farm
Chelford Road, Nether Alderley
Cheshire SK10 4SY UK

certify and declare under our sole responsibility that the following equipment*(s)* :

Commercial name : Single Tube Reader
Model name : XTR-1

Is *(are)* in conformity with the protection requirements of Council Directive 89/336/EEC as regards Electromagnetic compatibility and Council Directive 73/23/EEC as regards Low Voltage safety Based upon compliance of the product with the following harmonized standards:

Emission Standard. EN55022:1998 Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement		**Immunity Standard. EN55024:1998** Information technology equipment - Immunity characteristics - Limits and methods of measurement		
Conducted and Radiated Emission	EN 55022 Class B : 1998	ESD	EN 61000-4-2	1995
		RS	EN 61000-4-3	1997
Harmonics current emission	EN 61000-3-2 : 1995 + A12 (1996) + A13 (1997) + A1 (1998) + A2 (1998)	EFTB	EN 61000-4-4	1995
		Surge	EN 61000-4-5	1995
Limitation of voltage changes, voltage fluctuations and flicker	EN 61000-3-3 : 1995	Conducted RF	EN 61000-4-6	1996
		Magnetic Field	EN 61000-4-8	1993
		Dip & Interrupt	EN 61000-4-11	1994

Safety Standards:	**EN 60950** : 2000

Designed and Manufactured by:

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Director

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